Work Order ID 103582 June-24-13 1:58:43 PM		*103				Page 1		
Item ID: D4021-7 Revision ID: Item Name: Hoop	A	ccept	*N90004	.010(	<b>)*</b> s	etup Start Stop	14.	S1* S2*
Start Date: 6/24/13 Start Qty: 10.00 Required Date: 7/05/13 Req'd Qty: 10.00 Reference:	*10* *10*		Cust Item ID: Customer:					
Approvals: Process Plan: MLJ  QC:	70	Tooling: _ SPC (Y/N):	Date:		R	Run Start Stop	" \]	R1* R2*
Sequence ID/ Operation Work Center ID Description		Set Up/ Run Hours	Tool ID Too	ol # Plan Code	Accept Qty		Reject Number	Insp. Stamp
Draw Nbr Revision Nbr								
D4021 B 100 *100*		0.00				· · · · · · · · · · · · · · · · · · ·		4 0 0
Waterjet  Memo  FLOW CNC Waterjet  Cut as per dv  Prog Rev:  Dwg Rev:  Deburr as rec	3	0.00			<u> 20</u>	_ <i>D</i> _	:	_JM13-04-6
QC2- Inspect parts off ma *110*  QC Memo	achine FAI/FAIB	0.00			20	0		Ju 130704

Quality Control

DQA:	A: Date:					DART									
QA Closed:		•	Date:			WORK ORDER NON-	-C(	ONFO	RMANCE / UPDATE	Wo	ork Order up	odate only	AEROSPACE		
Work Orde	or.					DISPOSITION			AGAINST	DEF	PARTMENT	/PROCESS			
WOIR Old	٠					Rework			Skid-tube Crosstube			Water Jet	T resiscenting		
Part N	Nο					Scrap			Machining Small Fab		Pro	d. Eng. Coor.	Engineering Quality		
		···				Use-as-is			noforming Finishing	-		re/Packaging	Other		
NCR I	Vo.					Suspected Unapproved		111011	Large Fab Composite	$\vdash$	nec/3to	Supplier			
					_		•		·						
Root					Desc	ription of work order update		Initial	Action		Sign &				
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Description		Date	Verification	QC Inspector		
Design															
Doc/Data															
Equip/Tooling	<u> </u>														
Handling/Pre	Щ														
Material				·				l							
Operator															
Offset/Setup												,			
Process	Щ					·					•				
Supplier	_									l					
Training															
Transport		-													
Unapproved		<u> </u>	l												
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	<u> </u>	Bending				Bend	<u> </u>	1 .	Program	-	Outside Dim	<b>⊢</b>	Pressure/Forced		
	<u> </u>	Centre No	ot Concer	ntric	<u> </u>	BOM/Route		Grain		-	Over/Under	<u>-</u>	Set-up		
		Cracks			-	Broken/Damage/Defect	<u> </u>	Hardwa		Ш	Part Incorred	ct _	Temperature/Cure		
	<u> </u>	Crimp/Kir	k/Ripple	/Wave	ļ	Burrs		1	ion Incomplete/Unqualified	-	Part Lost/Mi	· -	Weld		
	Cuffs		<u> </u>	Contamination		4	tions Incomplete/Unclear	Ш	Part Moved		Wrong Stock Pulled				
	$\overline{}$	Crushing			-	Countersink	<u> </u>	1 `	gned/off center	Ш	Positioned V	Vrong			
	Heat Treat			Cut Too Short		Mislabe	eled		Power Loss/	Surge	Other				
		Inspection		Tube	<u> </u>	Drawing	_	Misread	d						
		Marks/Ch	atter			Drill Holes	L	Off-set		_					
		Turning S				Finish		Out of	Calibration	_					
Wave/Twist in Tube				Fit/Function		Out of	Out of Sequence				····				

June-24-13 1:.	58:43 PM												•
Item ID: Revision ID: Item Name:	D4021-7 Hoop	· ·		Accep	t	*N9(	າດເ	740	100	<b>)</b> * :	Setup Sta		IS1* IS2*
Start Date: Required Date Reference:	6/24/13	Start Qty: 10.00 Req'd Qty: 10.00	*1( *1(			Cust I		<b>)</b> :					<b>u. 1</b> /
Approvals:	Process P	lan:	Date:	Тоо	ling:		_ Dat	te:		]	Run Sta		JR1*
	QC:		Date:	SPC	C (Y/N):	·	_ Dat	te:			Sto	, *V	JR2*
Sequence ID/ Work Center	ID	Operation Description		F	Set Up/ Run Hours	Tool	ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Numbe	Insp. er Stamp
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Quality Control					13.7.	8				·			
130				0.0	00					(5)	) 1 A	4	
*130* Small Fab		Memo		0.	.00					(LOX)	1 20	13-	7-9
Small Fab			us as per dwg										
										*			
140 * <b>4</b>		QC5- Inspect part comple	teness to step on W	/O 0.0	JU					3			60
*14 <b>0</b> *		Memo		0.	.00					(A)	1301	05	<u></u>
Quality Control										•		*	•

DQA:			Date:										
												AEROSPACE	
QA Closed:			Date:							V	Vork Order u	odate only	
Work Orde	er.					DISPOSITION				AGAINST D	EPARTMENT	/PROCESS	
	•••	:				Rework			Skid-tube	Crosstube	7	Water Jet	Engineering
Part I	Vo.					Scrap		<b>—</b>		Small Fab	Pro	d. Eng. Coor.	Quality
						Use-as-is		Thern	noforming	Finishing	Rec/Sto	re/Packaging	Other
NCR !	No.					Suspected Unapproved		Large Fab Composite				Supplier	
Root			1		Docc	ription of work order update		Initial	Act	ion	Cian 0		T
Cause		Date	Step	Qty	Desc	or non-conformance	l	nief Eng		ription	Sign & Date	Verification	QC Inspector
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Handling/Pre													
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Offset/Setup													
Process													
Supplier													
Training		]											
Transport													
Unapproved													
						4.	FA	ULT CAT	regory				
Landi	ng (	7			_	General		,		-	_		_
		Bending			<u> </u>	Bend		1	rogram	L	Outside Dim	ensions	Pressure/Forced
	<u> </u>	Centre N	ot Concer	ntric	<u> </u>	BOM/Route	_	Grain			Over/Under	<del> </del>	Set-up
	<u> </u>	Cracks			<u> </u>	Broken/Damage/Defect		Hardwa		L	Part Incorre	ct	Temperature/Cure
	<u> </u>	Crimp/Kii	nk/Ripple,	/Wave	<u> </u>	Burrs		1	on Incomplete/Ur	· -	Part Lost/Mi		Weld
	Cuffs		Contamination	_	1	ions Incomplete/U	Jnclear	Part Moved		Wrong Stock Pulled			
			Countersink	_	4 -	ned/off center	_	Positioned V		٦			
	Heat Treat Cut Too Short			_	Mislabe			Power Loss/	Surge	Other			
	Inspection Strip in Tube Drawing			_	Misread	d							
	Marks/Chatter Drill Holes			Off-set				<del></del>					
	Turning Sequence Finish				<u> </u>	1	Calibration			···			
	Wave/Twist in Tube			Fit/Function		Out of S	Sequence						

H:/FORMS/Quality Assurance\approved QA/NCRWO RevH

Work Order ID 103582

\*103582\*

Page 3

June-24-13 1:58:43 PM

Item ID: D4021-7 Accept

\*N900040100\*

Setup Start

\*NS2\*

**Revision ID:** 

Start Date:

Item Name: Hoop

Required Date: 7/05/13

6/24/13

**Start Oty: 10.00** Req'd Qty: 10.00 \*10\* \*10\*

**Cust Item ID:** 

**Customer:** 

Reference:

Approvals:

Process Plan:

OC:

Date: Date:

Tooling:

SPC (Y/N):

Set Up/

Date: Date:

Run

Stop

Stop

Sequence ID/ Work Center ID

150

\*150\*

**Packaging** 

Operation Description

Identify as per dwg & Stock Location:

OC21- Final Inspection - Work Order Release

Run Hours

0.00

Tool ID

Tool # Plan Code

Accept Qty

Reject Qty

Reject Number Stamp

Insp.

Packaging

Memo

0.00

C 13-7-9

160

\*160\*

Quality Control

Memo

0.00

0.00

PC3-07-10

DQA:	QA: Date:					WORK ORDER NON		221501		D.4.T.F			`	
QA Closed:			Date:			WORK ORDER NON	-C(	JNFO	RIMANCE / UP		Nork Order u	pdate only		AEROSPACE
Work Orde	er:	į				DISPOSITION				AGAINST D	EPARTMEN	T/PROCESS		
Part N						Rework Scrap		<b>!</b>		Crosstube Small Fab	Prod. Eng. Coor			Engineering Quality
NCR N	۱٥					Use-as-is Suspected Unapproved	I ~			Finishing Composite	Rec/Sto	ore/Packaging Supplier		Other
Root				· · · <del>-</del> 1	Desc	ription of work order update		Initial	Actio	n	Sign &		T	
Cause	C	ate	Step	Qty		or non-conformance	Ch	ief Eng	Descrip	otion	Date	Verification	n	QC Inspector
Design Doc/Data Equip/Tooling Handling/Pre										·				
Material							ļ							
Operator														
Offset/Setup														
Process														
Supplier														
Training														
Transport							,							
Unapproved														•
<del></del>							FA	ULT CAT	<b>TEGORY</b>					
Landir	ng Gear	•			_	General		-		_				
		nding				Bend	_	Folio/F	Program		Outside Dir	nensions		Pressure/Forced
	Cer	itre No	t Concer	ntric	ļ	BOM/Route		Grain			Over/Unde	r tolerance		Set-up
	Cra					Broken/Damage/Defect		Hardwa	ire		Part Incorre	ect	-	Temperature/Cure
			k/Ripple,	/Wave		Burrs		Inspect	ion Incomplete/Unq	ualified	Part Lost/N	lissing	\	Weld
	Cuffs			Contamination		Instruct	ions Incomplete/Un	clear	Part Moved	l	\	Wrong Stock Pulled		
		shing				Countersink		Misalig	ned/off center		Positioned	Wrong		
	—	at Treat				Cut Too Short		Mislabe	eled		Power Loss	/Surge		Other
			Strip in	Tube	ļ	Drawing		Misread	t					
	Ma	rks/Cha	atter			Drill Holes		Off-set						
	Tur	ning Se	equence			Finish		Out of 0	Calibration					
	Wave/Twist in Tube			Fit/Function	$\Box$	Out of	Saguanca					<del></del>		

**Picklist Print** 

June-24-13 1:58:43 PM

Work Order ID: 103582

Parent Item:

D4021-7

Parent Item Name:

Hoop

**Start Date: 6/24/13 Start Qty: 10.00** 

Required Date: 7/05/13 Required Qty: 10.00

**Comments:** 

IPP RevA: new issue DD 09.11.25 verified by:EC

9.11.25 verified by:EC IPP Rev:B as per dwg REV.A DD IPP Rev:C as per dwg revB DD 10.04.20 verified by:EC

10.02.22 verified by:EC

	10102122 10111104 0	7.20 11 1101	. c ac po.	ungions st	10.020 .01	11100 07.20								
Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status	,
M304B0.625X3.000 304 BAR .625 X 3.00		Purchased	No		.*	100	f	13.0000	0.4166	4.38526	7 FT.	Ini	307-04	þ
		4		Location		Loc Oty	Lo	oc Code						

**MAT049** 13 125585 125585 13

Page 1

DQA:	QA: Date:				- was varied to the same of t									
QA Closed:			Date:			WORK ORDER NON-	-CC	ONFO	RMANCE / UI		ork Order up	odate only	AEROSPACE	
						DISPOSITION				AGAINST DE	PARTMENT	/PROCESS		
Work Orde	er: _						,		—		, 1			
						Rework		Skid-tube Crosstub			_	Water Jet	Engineering	
Part N	۷Ο	<u> </u>				Scrap			Machining	Small Fab	<b>⊣</b>	d. Eng. Coor.	Quality	
NCR N	do.					Use-as-is Suspected Unapproved		inern	noforming	Finishing	Kec/Stoi	re/Packaging	Other	
NCK I	٠٠٠.			-	<u> </u>	Suspected Onapproved			Large Fab Composite			Supplier		
Root					Desc	ription of work order update		nitial	Act	ion	Sign &			
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Descr	ription	Date	Verification	QC Inspector	
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		Centre No	t Concer	ntric		BOM/Route		Grain			Over/Under	tolerance	Set-up	
		Cracks				Broken/Damage/Defect		Hardwa	ire		Part Incorred	ct	Temperature/Cure	
		Crimp/Kin	k/Ripple	/Wave		Burrs		Inspecti	ion Incomplete/Un	nqualified	Part Lost/Mi	ssing	Weld	
		Cuffs				Contamination		Instruct	ions Incomplete/U	Jnclear	Part Moved		Wrong Stock Pulled	
		Crushing				Countersink		Misalig	ned/off center		Positioned V	Vrong	<b>-</b>	
		Heat Trea	t			Cut Too Short		Mislabe			Power Loss/	Surge	Other	
		Inspection	n Strip in	Tube		Drawing		Misread	<b>d</b> .		<b>-</b>			
		Marks/Ch	atter			Drill Holes		Off-set						
		Turning Se	equence			Finish		1	Calibration					
		Wave/Tw	ist in Tub	e		Fit/Function		Out of 9	Sequence					
	Wave/Twist in Tube													

DART AEROSPACE LTD	Work Order:	10328/
Description: Hoop	Part Number:	D4021-7
Inspection Dwg: D4021 Rev: B		Page 1 of 1

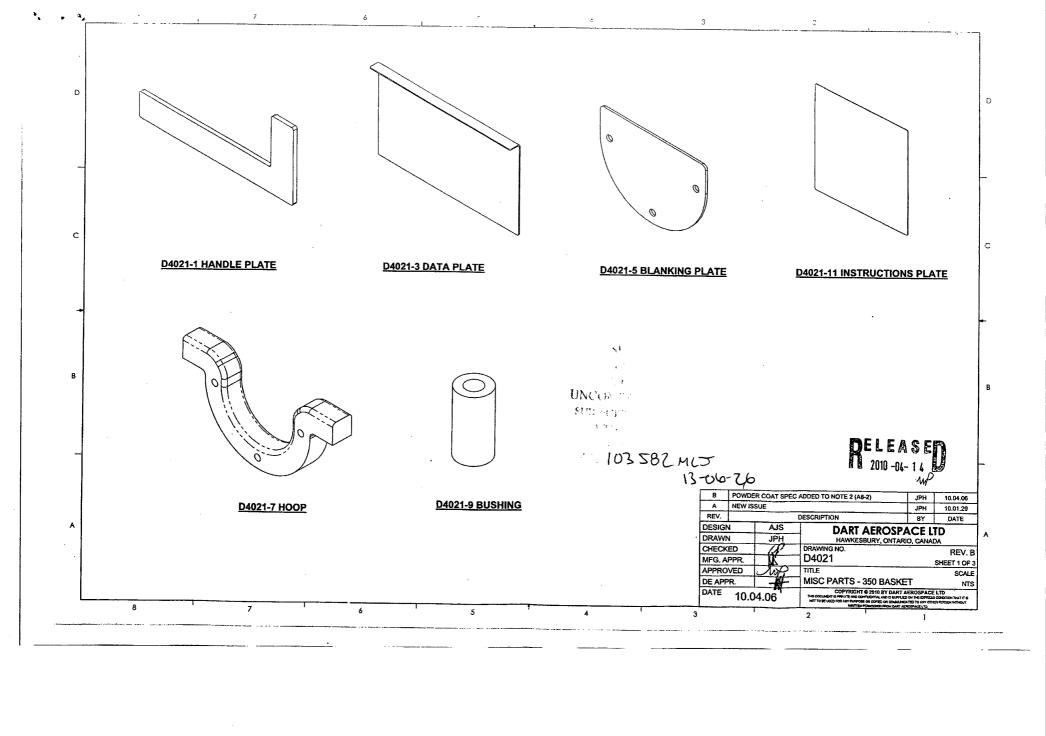
## FIRST ARTICLE INSPECTION CHECKLIST

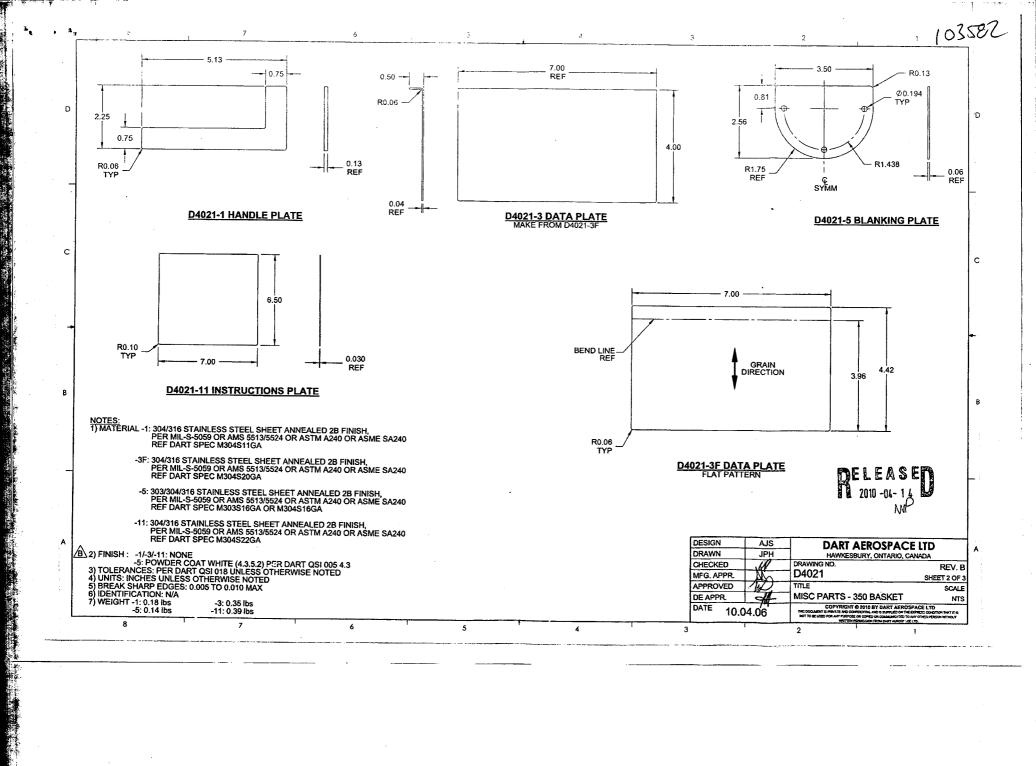
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.194	+0.005/-0.001	0,194"	_		V	Jemos
1.38	+/-0.030	1.366			ν	
2.25	+/-0.030	2.254"	_		4V	
5.00	+/-0.030	2.256"			ν	
0.813	+/-0.010	1 1 8 17			V	
2.500	+/-0.010	2.500			ν	
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0.63	+0.000/-0.050	0.634	-		<b>V</b>	
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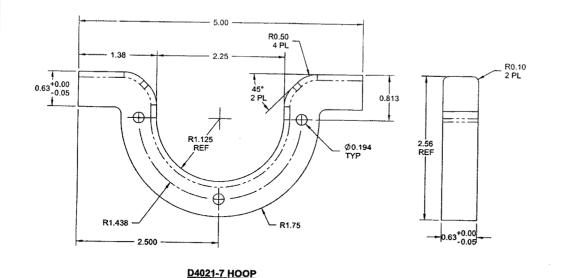
Measured by:	Jm	Audited by:	27	Preliminary Approval:	N/A
Date:	13-07-04	Date:	1378	Date:	N/A

Rev	Date	Change	Revised by	Approved
Α	10.04.01	New Issue	KJ	1.1
В	10.08.18	Dimensions revised per Dwg Rev B	KJ KJ	201
				The state of the s

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D4021-9 BUSHING

MP

DESIGN	AJS	DART AEROSPACE LTD			
DRAWN	JPH	HAWKESBURY, ONTARIO, CANADA			
CHECKED	140	DRAWING NO.	REV. B		
MFG. APPR.		D4021	SHEET 3 OF 3		
APPROVED	INP.	TITLE	SCALE		
DE APPR.	_4	MISC PARTS - 350 BASKET	NTS		
DATE 10.0	04.06	COPYRIGHT © 2010 BY DART AEROSPACE LTD  THE COCUMENTS WIS CONFEDERING AND IS SUPPLIED ON THE COPRESS CONDITION DANT IT IS  HOT TO BE USED FOR ANY PARPOSE ON COMMANDATE TO ANY COMPRESSOR WITHOUT  RESITTIN PERSONSING WINDOWN DART ARROPMENT TO			

NOTES: 1) MATERIAL-7: 304/316 STAINLESS STEEL BAR, PER ASTM A276 REF DART SPEC M304B

-9: 304/316 STAINLESS STEEL ROUND BAR, PER ASTM A276
REF DART SPEC M304R
2) FINISH: NONE
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: N/A
7) WEIGHT -7: 0.80 lbs
-9: 0.02 lbs

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<b>##</b> \$ 25			
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